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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,423	06/24/2003	Shinn-Gwo Hong	03165-UPS	3312

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EXAMINER	
MCCLENDON, SANZA L	

ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/603,423	HONG, SHINN-GWO
	Examiner	Art Unit
	Sanza L McClendon	1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Goldberg et al (3,162,676).

Goldberg et al teaches ethylenically unsaturated derivatives of 2,4-dihydroxybenzophenone. Said derivatives are obtained by a base catalyzed reaction between a 2,4-dihydroxybenzophenone intermediate and a glycidyl acrylate or glycidyl methacrylate compound (glycidyl (meth) acrylate). Said glycidyl (meth) acrylates anticipates claims 9-10. Said benzophenones intermediates have the general formula found in column 2, lines 55-60 and others can be found in column 3, lines 25-50, wherein 2,2,4,4'-tetrahydroxybenzophenone can be found. This anticipates claims 6-8. Said glycidyl methacrylate can be found in a concentration amounting to slight equimolar excess in the order of 10-20% over the dihydroxybenzophenone compound. Said base catalyst can be chosen from the group found in column 3, lines 61-67, wherein inorganic bases can be found, such as sodium hydroxide, which is a alkaline metal hydroxide. This anticipates claims 11-12. Said base is found in concentration amounts from 0.1 to 5% by weight of the glycidyl (meth) acrylate, which anticipates claim 4. The catalytic reaction is heated from a temperature between 50 to 100 ÿC, which anticipates claim 5. Per examples, Goldberg et al teaches a crosslinkable UV absorbing compound that anticipates the method steps of claim 1. Said example teach reacting a glycidyl (meth) acrylate with a 2,4-dihydroxybenzophenone intermediate in the presence of a base, heating, and then collecting the viscous product for future usage. Per example III, Goldberg et al teaches using an approximate parts benzophenones compound and glycidyl (meth) acrylate (No. 1) and using

approximately 312 parts of glycidyl (meth) acrylate to 246 parts benzophenones compound. These appear to anticipate claims 2-3.

The inventions of claims 1-12 are anticipated by the reference.

3. Claims 1-2 and 4-6 and 9-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Vogl et al (5,099,027).

Vogl et al teaches ethylenically unsaturated derivatives of 2-(2-hydroxyphenyl)-2H-benzotriazole. Said derivatives can be obtained by reacting an ethylenically unsaturated 1,2-epoxy compound with a 2-(2-hydroxyphenyl)-2H-benzotriazole compound. Said compounds are useful in the manufacture of optical lenses—see abstract. This appears to anticipate claim 17. Said ethylenically unsaturated 1,2-epoxy compounds can be glycidyl (meth) acrylate or glycidyl allyl ether compound, with glycidyl (meth) acrylate compounds being preferred—see column 2, lines 47-51. This appears to anticipate claims 9-10. Said 2-(2-hydroxyphenyl)-2H-benzotriazole compounds can be represented by the general formula found in column 2, lines 1-10 and lines 55-65. This appears to anticipate claim 6. The reaction is catalyzed by from 0.1 to 5% by weight of a base in the presence of from .01 to 2% by weight inhibitor and then heated to initiate the reaction, wherein the bases and inhibitors can be found in column 3, lines 5-15. Said weight percentages for the base and inhibitor are based on the total weight of the epoxy-containing compound. Said bases include inorganic bases, such as benzyl trimethyl ammonium chloride and said inhibitors include compounds, such as hydroquinone. These teachings appear to anticipate claims 4, 11-16. The reaction temperature is conducted at about 70-100 ÿC. This appears to anticipate claim 5. Vogl et al teaches said epoxy-containing compound can be used in equimolar amounts, however excess epoxy-containing compounds are permitted—see column 3, lines 25-30.

The invention of claims 1-2, 4-6, and 9-17 are found in the reference.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents 4,585,693; 3,429,852; and 4,395,463 all teach reaction

products of a compound having hydroxyl groups and UV absorbing properties with compounds having glycidyl (meth) acrylate moieties similar to the claimed invention.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sanza L McClendon
Examiner
Art Unit 1711

SMc